

Appl. No. 10/055,759

Amendment dated:

Reply to Final Office Action dated: Feb. 7, 2007

Remarks/Arguments

This amendment and remarks are in response to the Final Office Action dated February 7, 2007. At the time of the Final Office Action, claims 1-20 were pending in the application. Claims 1-8, 10-18 and 20 were rejected under 35 U.S.C. 102(e). Claims 9 and 19 were rejected under 35 U.S.C. 103(a). Claim 9 is amended to make claim 9 consistent with the claim language of claim 19. Claim 11 is amended to make claim 11 consistent with the claim language of claim 1 and to correct minor typographical errors. The rejections are set out in more detail below.

I. Brief Review of Applicant's Invention

Prior to addressing the Examiner's rejections on the art, a brief review of applicant's invention is appropriate. The invention concerns a system and related method for providing multimedia presentations on demand in a near or on demand environment. The system includes a multimedia broadcast system and a subscriber multimedia system. The multimedia broadcast system includes a controller, multimedia source, broadcasting unit, and broadcaster communications unit. The multimedia broadcast system can also include an authorization control system, performance control system, and billing control system. The subscriber multimedia system includes a controller, broadcast receiver, user interface, subscriber communications unit, multimedia recorder, and multimedia performance unit.

Amended claims 1 and 11 concern the foregoing system and related method for providing multimedia presentations on demand in a near or on demand environment where the multimedia recorder is configured for pre-recording a beginning segment of a multimedia presentation which is broadcasted over at least two channels at a periodic interval. The periodic interval is a difference of time between the start of the broadcast of the multimedia presentation over a first channel and second different channel. The beginning segment has a time duration at least as long as the periodic interval.

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The subscriber multimedia controller operatively communicates with the multimedia recorder. The subscriber multimedia controller commences playback of the beginning segment corresponding to the multimedia presentation, wherein the beginning segment is received unscrambled. The subscriber multimedia controller further commences recording of the multimedia presentation for which a broadcast has already begun, wherein the rest of the multimedia presentation, which is not the beginning segment of the multimedia presentation, is received scrambled.

The subscriber multimedia controller further switches playback of the beginning segment to playback of the recorded portion of the rest of the multimedia presentation when the playback program content of the rest of the multimedia presentation contained in the recorded portion, wherein the rest of the recorded multimedia presentation is unscrambled during the recording or playback of the rest of the multimedia presentation.

II. Claim Rejections Under 35 U.S.C. §102(e)

Claims 1-8, 10-18 and 20 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. patent no. 6,701,528 to Arsenault et al. ("Arsenault et al."). The Arsenault et al. reference teaches a method and apparatus for providing virtual video on demand (VOD) services. The method and apparatus disclose the storing of a segment of a video program in advance for VOD viewing at a later time. When the subscriber selects VOD service, a pre-stored video segment is retrieved for presentation to the subscriber. Remaining video program segments are simultaneously broadcast on a plurality of channels and recorded in parallel while the pre-stored video program segment is retrieved and presented to the subscriber.

The video programs are provided from a program source to video channels which are connected to encoders such as MPEG-2 format encoders. After encoding by the encoders, the data signals are converted into data packets by a packetizer associated with each program source. The data packets are then multiplexed into serial data and transmitted. Thus, the data stream comprises a series of data packets from any one of the data sources in an order determined

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by a controller. The data stream is then encrypted by an encryption module, modulated by a modulator, and provided to a transmitter for transmitting the modulated data stream to subscribers. Each data packet includes a number of packet segments. The packet segments include information such as service channel identification (SCID) which identifies the data packet's data channel, flags used to control whether the packet is encrypted and what key must be used to decrypt the packet, packet type indicator, and payload data.

An integrated receiver/decoder (IRD) provided to each subscriber receives these signals, and using the SCID, reassembles the packets to regenerate the program material for each channel. The data signal is demodulated, decrypted, decoded by a decoder such as an MPEG-2 format decoder, and converted by a video processor into an output signal usable by a display or other output device. Program selection information from the subscriber is provided to a controller and used to select one or more SCID's associated with the desired program. VOD service is provided by broadcasting the same video program on a plurality of program channels with each channel separated by a rebroadcast interval. A first segment of the selected video program is received and stored. When VOD service is requested, the pre-stored segment is retrieved for presentation to the subscriber. While this retrieval is taking place, the subsequent segments of the video program are being received from some of the plurality of channels and stored in a video storage device. The subsequent segments of the video program can be spliced to the pre-stored segment at a selected point so the entire video program can be viewed.

Independent claim 1 as amended recites a method for providing multimedia presentations on demand in a near on demand environment including the step of pre-recording a beginning segment of a multimedia presentation which is broadcasted over at least two channels with a periodic interval being a difference of time between the start of the broadcast of the multimedia presentation over a first channel and a second different channel, the beginning segment having a time duration at least as long as the periodic interval.

In addition, claim 1 recites the steps of responsive to a user request for performance of the multimedia presentation: a) commencing playback of the

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beginning segment corresponding to the multimedia presentation, wherein the beginning segment is received unscrambled, b) commencing recording of the multimedia presentation for which a broadcast has already begun, wherein the rest of the multimedia presentation, which is not the beginning segment of the multimedia presentation, is received scrambled, and c) switching from the playback of the beginning segment to playback of the recording of the rest of the multimedia presentation when program content of the beginning segment corresponds with program content of the rest of the multimedia presentation contained in the recording, wherein the rest of the recorded multimedia presentation is unscrambled during the performance of at least one of step b and step c.

In contrast, the Arsenault et al. reference does not teach commencing playback of the beginning segment corresponding to the multimedia presentation, wherein the beginning segment is received unscrambled. The Arsenault et al. reference teaches that in one embodiment all program material is encrypted (Col. 9, lines 13-14). The Arsenault et al. reference also teaches that the VOD service could include non-encrypted programs (Col. 10, lines 7-9). However, despite the Examiner asserting otherwise, there is no teaching in the Arsenault et al. reference that the hardware comprising the IRD is configured for receiving the beginning segment in an unscrambled format (Col. 9, lines 46-60) and commencing playback and receiving the remaining segment that is not the beginning segment in a scrambled format (Col. 9, lines 14-45) and commencing recording.

Moreover, Applicant does not believe that the data packets in Arsenault et al. comprising the pre-stored and subsequent segments are received "unscrambled" and "scrambled" as recited in claim 1 according to Applicant's intended meaning or the meaning one of ordinary skill in the art would ascribe to these terms. In this regard, Applicant's intended meaning of unscrambled and scrambled does not have the same meaning as decrypted and encrypted with respect to securing the data packets as taught in Arsenault et al.

With respect to the meaning of the terms unscrambled and scrambled to one of ordinary skill in the art, a scrambler is a device that transposes or inverts

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signals or otherwise encodes a message at the transmitter to make the message unintelligible at a receiver not equipped with an appropriately set descrambling device. In contrast, encryption usually refers to operations carried out in the digital domain. Scrambler. (2007, March 10). In *Wikipedia, The Free Encyclopedia*. Retrieved 18:27, June 22, 2007, from <http://en.wikipedia.org/w/index.php?title=Scrambler&oldid=113951830>.

Applicant's specification teaches that the broadcast system can broadcast presentations in digital or analog format (Applicant's specification p. 5, lines 20-21). Further, Applicant's specification teaches that that the broadcast presentations can be transmitted in data packets using encryption (Applicant's specification, p. 10, lines 20-24).

However, Applicant's specification does not teach that encryption is the only means by which the broadcast presentations are secured. Specifically, Applicant's specification teaches that a descrambling code key for descrambling the beginning segment and the broadcast presentation can be included in a subscriber authorization (Applicant's specification p. 2, lines 25-27 and p. 11, lines 21-23). The subscriber authorization can be received via a subscriber communications unit.

Applicant's specification also teaches that the beginning segment can be transmitted in an unscrambled format (Applicant's specification p. 3, lines 11-13 and p. 10, lines 8-10). Still, a descrambling code key is not the same as the encryption key or purchase information packet (PIP) transmitted to the IRD taught by the Arsenault et al. reference (Col. 9, lines 20-25) to decrypt the encrypted data packets. The encryption key or PIP is transmitted to the IRD after each of the subsequent segments of the selected video program is identified (Col. 10, lines 57-63). The IRD decrypts both the pre-stored program segments and the subsequent program segments using the PIP (Col. 2, lines 53-67 and Col. 10, lines 64-65).

In contrast to the foregoing, a descrambling code key could be used in applicant's invention for descrambling analog signals or other signals transmitted from the multimedia broadcast system to a subscriber multimedia system. The

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Arsenault et al. reference does not teach transmitting the multimedia presentations via analog signals. Further, the Arsenault et al. reference does not teach that the IRD is configured for processing transmitted analog signals. The IRD is configured strictly for processing a transmitted digital data stream.

Thus, a descrambling code key that could be used for descrambling analog or other signals as taught by applicant's specification is not the same as the encryption key or PIP for decrypting data packets as taught in the Arsenault et al. reference. Accordingly, applicant's intended meaning and the meaning known to one of ordinary skill in the art of the terms unscrambled and scrambled as recited in claim 1 with respect to the beginning segment and the rest of the presentation is not the same as the meaning of decrypted and encrypted with respect to the pre-stored segment and subsequent segment as taught in the Arsenault et al. reference.

In view of the foregoing, applicant believes that claim 1 is in condition for allowance and the rejection under 35 U.S.C. 102(e) as being anticipated by the Arsenault et al. reference must be withdrawn. In addition, applicant believes claims 2-8 and 10 are in condition for allowance at least by virtue of their dependency upon allowable base claim 1.

Independent claim 11 as amended is the apparatus claim directed to the related method recited in claim 1 for providing multimedia presentations on demand in a near on demand environment. Claim 11 contains structural limitations of the apparatus corresponding to the method steps recited in claim 1. Similarly, for the reasons described above with respect to claim 1, applicant believes claim 11 is in condition for allowance. In addition, applicant believes claims 12-18 and 20 are in condition for allowance at least by virtue of their dependency upon allowable base claim 11.

III. Claim Rejections Under 35 U.S.C. §103(a)

Claims 9 and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Arsenault et al. as applied to claims 1 and 11 and in view of U.S. patent no. 6,281,940 to Sciammarella ("Sciammarella"). The Sciammarella

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reference teaches a method and apparatus to convey information corresponding to previewed channels using a display configuration having a plurality of channel information locations arranged in a sequence. The Arsenault et al. reference does not teach periodically updating beginning segments with new beginning segments corresponding to subsequent multimedia presentations.

Claim 9 recites all of the method steps recited in claim 1 and the additional step of responsive to at least one of a user request and an automatic signal, periodically updating beginning segments with new beginning segments corresponding to subsequent multimedia presentations. Claim 19 is the apparatus claim directed to the related method recited in claims 1 and 9 directed to structural features for performing an automatic update function for periodically updating beginning segments with a plurality of new unscrambled beginning segments corresponding to a subsequent set of multimedia presentations.

However, applicant believes that the Sciammarella reference does not make up for the deficiencies of the Arsenault et al. reference and the Examiner has failed to state a *prima facie* case of obviousness under 35 U.S.C. §103(a). Further, there is no teaching or suggestion in the references for the combination proposed by the Examiner as is required for a rejection of the claims under 35 U.S.C. §103(a). Thus, applicant believes claims 9 and 19 are in condition for allowance and the rejection under 35 U.S.C. §103(a) must be withdrawn. In addition, applicant believes claims 9 and 19 are in condition for allowance at least by virtue of their dependency upon allowable base claims 1 and 11, respectively.

IV. Conclusion

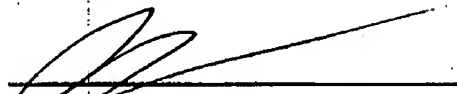
Applicants have made every effort to present claims which distinguish over the prior art, and it is believed that all claims are in condition for allowance. Nevertheless, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. In view of the foregoing remarks, Applicants respectfully request reconsideration and prompt allowance of the pending claims.

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Respectfully submitted,



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